

No. 637,321.

Patented Nov. 21, 1899.

L. CASPER.

ELECTRIC MASSAGE INSTRUMENT.

(Application filed May 23, 1899.)

(No Model.)

FIG. 1

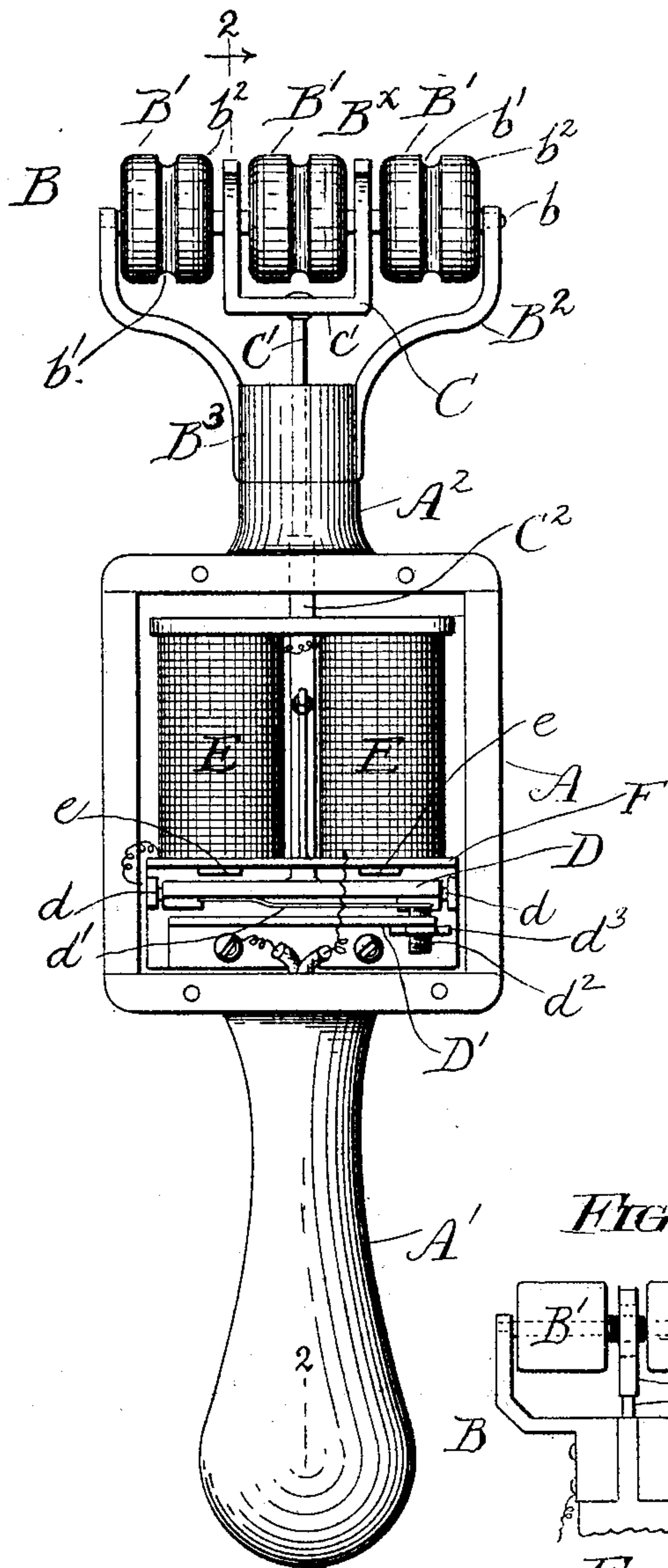


FIG. 2

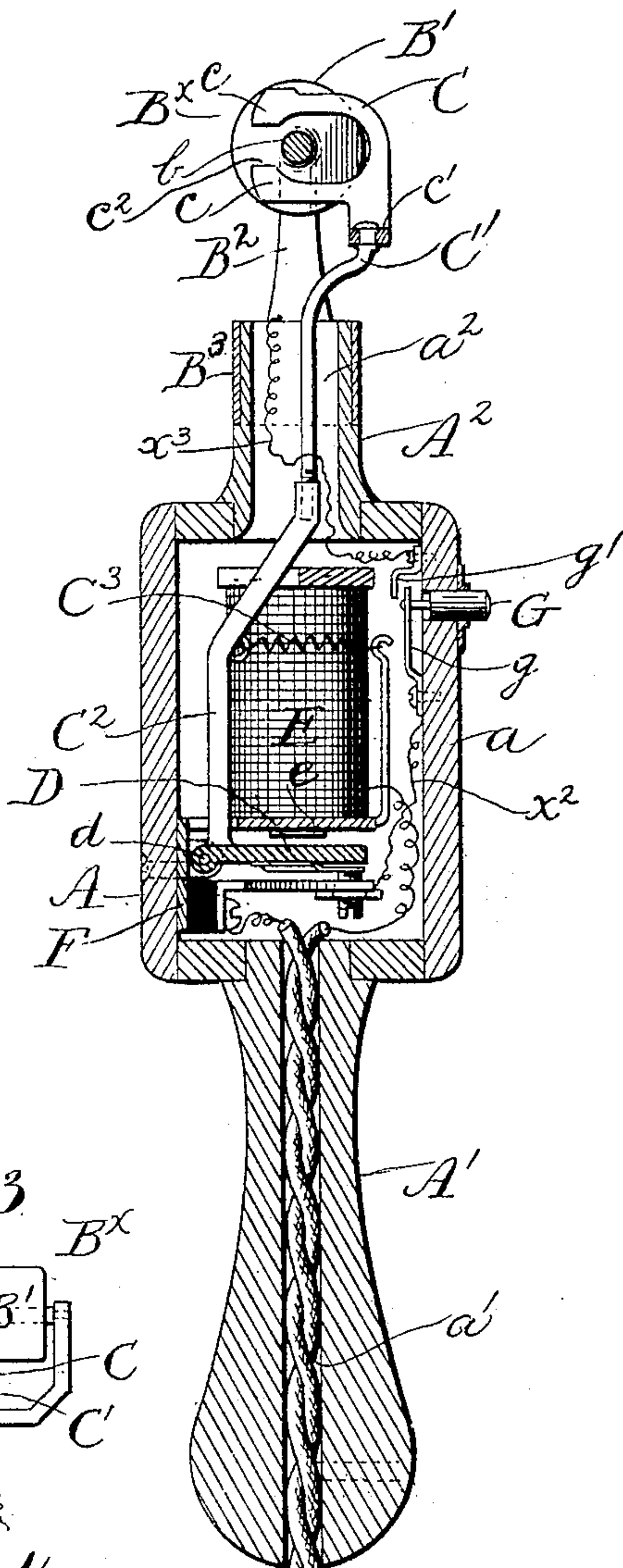


FIG. 3

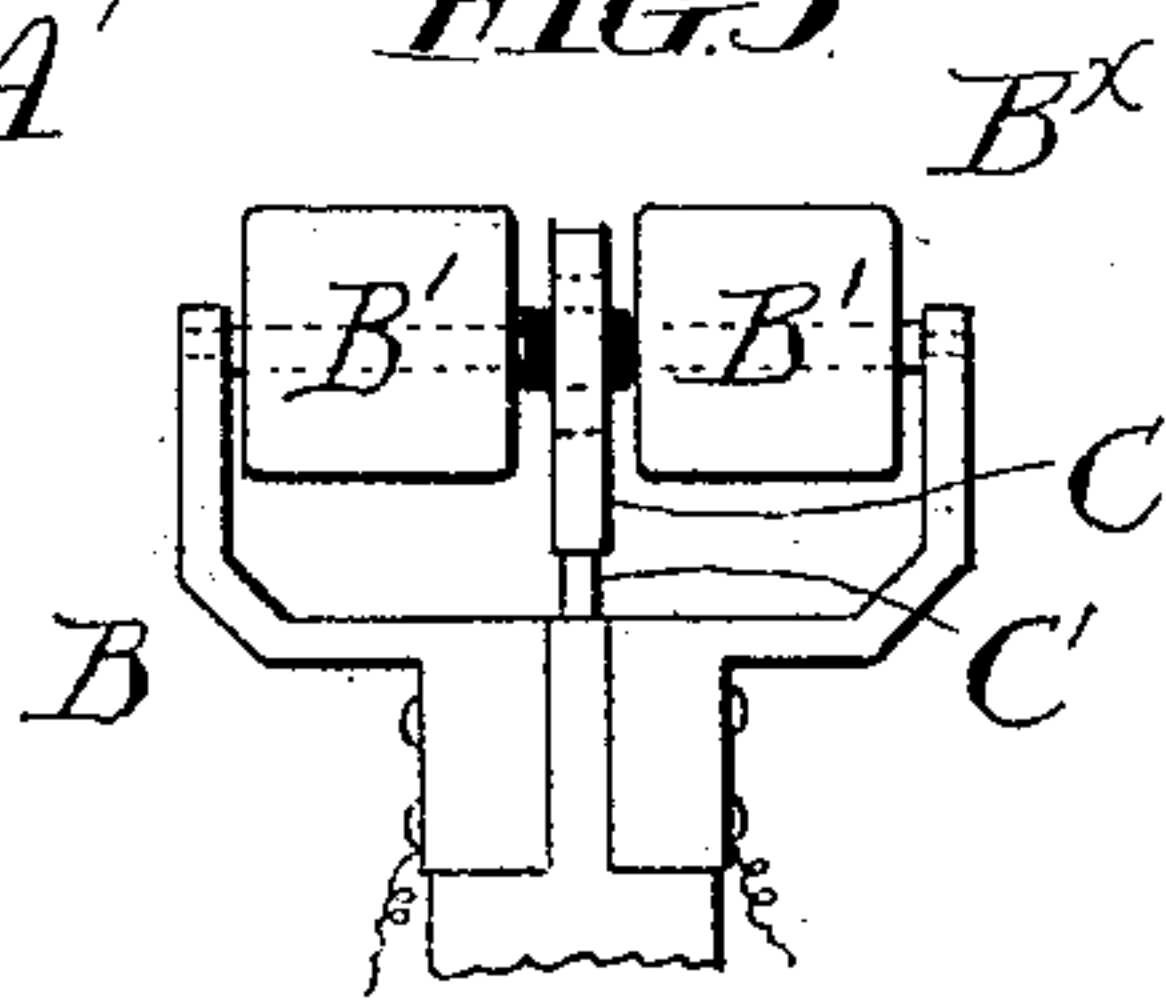
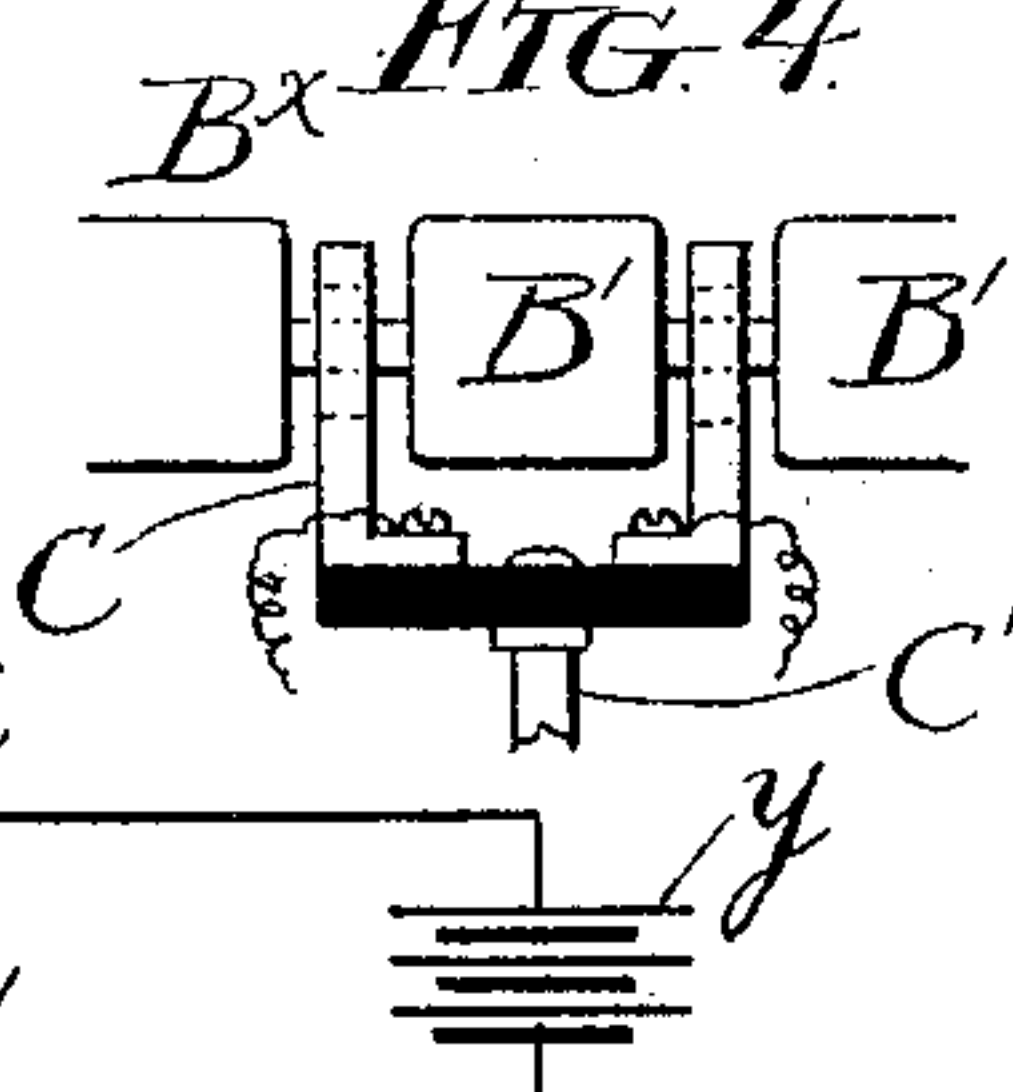


FIG. 4



Witnesses:

A. J. Bell

L. M. Cole

Inventor:

Louis Casper

UNITED STATES PATENT OFFICE.

LOUIS CASPER, OF CHICAGO, ILLINOIS.

ELECTRIC MASSAGE INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 637,321, dated November 21, 1899.

Application filed May 23, 1899. Serial No. 717,885. (No model.)

To all whom it may concern:

Be it known that I, LOUIS CASPER, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful
5 Improvements in Electric Massage Instruments, of which the following is a specification.

The present invention relates to electro-therapeutic massage instruments, the purpose
10 of the invention being to provide mechanical and electrical effects, whereby the skin and muscular, nerve, and other contiguous tissue may be favorably acted upon. This I accomplish by means embodied in a neat portable or
15 hand instrument having some novel features, which are illustrated in the accompanying drawings and which will hereinafter be particularly described.

In the drawings, Figure 1 is a front elevation of my massage instrument, the cover of
20 case being removed to show interior mechanism. Fig. 2 is a vertical cross-section of same, taken on line 2 of Fig. 1. Figs. 3 and 4 are details showing modifications in the head of
25 the instrument.

In carrying my invention into effect I provide means for producing mechanically a rolling massage action and a tapping or kneading effect, and I also employ parts of the in-
30 strument to act as electrodes and produce an electrical action on the skin while making one or more of the above-mentioned mechanical effects.

In illustrating my invention the following description will refer more particularly to the means I show in Figs. 1 and 2, which is the preferable form or construction of the instrument.

A refers as a whole to a box or case provided
40 with a cover a and for containing electromagnetic mechanism for operating a vibratory device to produce the striking or tapping effect referred to above. Attached to the case A is a handle A' , having a central bore or
45 opening a' , through which pass conducting-cords containing wires X and X', which are connected to a suitable battery or other generator of electricity—for instance, as shown at
50 y —and to the interior mechanism of box hereinafter referred to.

A^2 is a short neck or projection on the top

of case A and to which is attached the head of the instrument referred to as a whole by B.

B^x is a massage device, which consists of rollers B' , mounted on a spindle or axle b ,
55 which has bearings in arms B^2 . The arms B^2 are attached to a collar B^3 , secured to the neck or projection A^2 , the said neck being provided with a passage a^2 . The rollers B' are preferably made with an annular groove
60 b and rounded corners b^2 .

C is the striking or tapping device. This consists of strikers or fingers c , preferably constructed in pairs and having a cross-piece
65 c' , which is attached to a rod or shank C' , connected to a vibrator in the case of the instrument. The fingers or striking parts c are provided with a slot or opening c^2 , through which the axle b of the rollers B passes and
70 permitting free action of striking parts without contact with the said axle.

Contained in the case A is an arm or projection C^2 , to which the rod or shank C' is attached. The arm C^2 is attached to an armature D, pivoted at d to a bracket F.
75

C^3 is a spring for keeping armature out of contact with pole-pieces. Above the armature are electromagnets E, having pole-pieces
80 e . Below the armature D is an insulated plate D' , having a contact piece or screw d^2 and a set-nut d^3 . A small spring or tongue d' is attached to the armature and normally makes contact with the screw d^2 . The wires x and
85 x' are connected to the magnetic coils E and to the plate D' .

To cause an electric current to pass through massaging parts or head of instrument when contact is made with skin of user, I provide the following means: Leading from the plate
90 D' is a wire x^2 , connected to suitable switching means—as, for instance, the tongue g of the push-button G. From the contact-piece
95 g' a wire x^3 leads to the head of the instrument. As shown in Fig. 2, this connection is to one of the arms B^2 . When the connections are closed by the button G and the head
100 of the instrument placed against the skin, the electric current passes through the arm B^2 , through the rollers B' , and the circuit is completed through the striking part C and its connections to the armature and coils of same.

The rollers B' and the striking part C form electrodes in the above instance; but this may be varied without departing from the spirit of my invention. As shown in Fig. 3, the rollers B' are insulated and have suitable connections, so as to form the electrodes, and in Fig. 4 a pair of striking parts are insulated and have connections, so as to make them the electrodes.

The operation of the instrument is as follows: The head of the instrument B is placed against the face or the skin on any portion of body desired to be massaged. The instrument is moved back and forth, thus actuating the rollers and massaging the parts desired. Should a tapping or striking action be required, wires to battery or other similar generator of electricity are connected or circuit closed. The armature D will then vibrate, thus actuating the arm C² and the striking part C. Should an electrical action be desired on the skin or contiguous tissues of the patient or user, the button G is closed, thus causing a vibratory electrical effect by the current passing the parts of the head of instrument which act as electrodes, the current being made intermittent by the vibratory or breaking action of the armature D.

It will thus be seen that my invention provides a very neat and compact instrument for the purpose of massaging or electrotherapeutic treatment described. It is readily to be seen that the construction of the instrument may be modified, if desired, without departing from the leading features of my invention. Thus any well-known form of electromagnetic mechanism may be employed in the case A for actuating the striking part C, and the use of parts of the head B as terminal electrodes while performing the office of massaging may be modified, as already noted.

What I claim is—

1. In an instrument of the class described, means for producing a rolling massage action, means for producing a tapping or striking action and means for producing an electrical action on the skin through the parts employed for massaging, substantially as set forth.

2. In an instrument of the class described a head having rollers and a striking device, and means for actuating the said device substantially as set forth.

3. In an instrument of the class described a head having rollers and a striking device, the said head being mounted on a case containing electrical magnetic means for actuating the striking device as set forth.

4. In an electrical massage instrument hav-

ing rollers and a striking device, means for actuating the same, and means for providing an electrical effect on the skin, substantially as set forth.

5. An electric massage instrument, having rollers and a striking device, means for actuating the same and for producing an electrical action on the skin through the parts of the instruments that perform the office of massaging, as set forth.

6. In an electric massage instrument, a rolling electrode and a vibratory electrode and means for actuating same, substantially as set forth.

7. In an electric massage instrument a striking device connected to an armature, electromagnetic means for actuating the same, in combination with a rolling device and means for effecting electrical action through parts of the instrument which performs the purpose of massaging, as set forth.

8. In an instrument of class described, a striking device, means for actuating the same, and a series of rollers, the striking device being provided with fingers that surround axle of rollers, substantially as set forth.

9. In an instrument of class described, a striking device having fingers that pass between rollers on head of the instrument, substantially as set forth.

10. In an instrument of class described, a head having a rolling device and a striking part which has a shank or rod connected to electromagnetic means for vibrating same, the said means being located in a suitable case.

11. In an electric massage instrument, a case provided with a handle and a head having rolling and striking devices, the said striking devices having means for actuating same in case, as set forth.

12. In an electric massage instrument, a case provided with a handle through which pass electrical conductors, and a head having rolling and striking devices, and means for actuating the striking device, as set forth.

13. In an electric massage instrument, a case having a handle through which pass electrical conductors, and a head having rolling and striking devices, and means in the case for actuating the striking device and effecting electrical action on skin through the parts employed for massaging, as set forth.

In testimony whereof I have hereunto set my hand this 19th day of May, 1899.

LOUIS CASPER.

In presence of—

C. HAUSTEM,

CHARLES W. NELSON.